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CAST COATED PAPER FOR INK JET RECORDING

[Claim(s)]

[Claim 1]in a coating composition which uses paints and adhesives as the main ingredients -- these paints -- the inside of all the paints 100 weight sections -- a ratio -- paints which blended 20 or more weight sections of paints of 1.20 or more ml/g of sedimentation volume. or a ratio of mixed paints -- sedimentation volume being the paints of 1.20 or more ml/g, and, Cast coated paper for ink jet recording carrying out coating of what carried out 5-30 weight-section addition to all the paints 100 weight section by using aqueous urethane resin as the main ingredients as these adhesives to a base paper, and carrying out cast finishing of this coated paper.

[Claim 2]The cast coated paper for ink jet recording according to claim 1 adding adhesives which consist of aqueous urethane resin and water soluble resin.

[Claim 3]Claim 1, cast coated paper for ink jet recording of two statements, wherein water soluble resin as adhesives is casein, soybean protein, and/or synthetic protein.

[Claim 4]Claims 1 and 2, cast coated paper for ink jet recording of three statements which carried out with a rewet system as a cast finishing method, and added a water-soluble cationic substance to the rewetting liquid.

[Claim 5]Claims 1, 2, and 3, cast coated paper for ink jet recording of four statements whose water-soluble cationic substance added to a rewetting liquid is a reactant of epihalohydrin, water-soluble alkylamine, and/or water-soluble dialkyl amine.

DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Industrial Application]Especially this invention relates to the cast coated paper for ink jet recording excellent in ink jet recording suitability, such as printing density, an ink drying characteristic, and the shape reproducibility of a dot (picture), about the cast coated paper for ink jet recording.

[0002]

[Description of the Prior Art]The extension of ink jet recording is remarkable by the calm nature, improvement in the speed, colorization, and low pricing. Efforts to attain high-definition-izing of a picture and highly minute-ization in recent years are made, and since it is this purpose, the size of an ink droplet is in the tendency which becomes increasingly small. On the other hand, it is required to distort and grow fat the small circle of each of these ink droplets (dot), and to reproduce shape without a blot etc., in order to reproduce the shape of a picture faithfully. Therefore, in order to reproduce faithfully this small circle that becomes small recent years increasingly, it is called for that the smooth nature of a printed thing is high as much as possible. Now, the thing of the film base is well used to this purpose.

[0003]Although there are many if the price of paper is cheap as compared with a film, outstanding points -- it is refreshable or opacity is high -- they are inferior to reproducing a low high-definition picture in smooth nature. In order to aim at improvement in the smooth nature which is a fault of this paper, there is coated paper which carried out paints coating and performed calender processing on the base paper, but this is also still insufficient for reproducing a high-definition picture, although smooth nature is high as compared with non-coated paper.

[0004]Although cast coated paper has the highest smooth nature in coated paper and it is suitable for reproducing a high-definition picture, the actual condition of the thing which has come out to the present commercial scene is that an ink drying characteristic etc. are bad and do not have satisfactory ink jet recording suitability.

[0005]In order to improve this fault, art, such as JP,6-94229,B, JP,6-305237,A, and JP,6-320857,A, is indicated. Here as JP,6-94229,B has a statement in an "office-use paper" (87 editions, paper business Times company **) Clay, Although excelled in respect of drying property, printing density, and a blot compared with calcium carbonate, since it must use 25 or more weight sections of comparatively expensive silica

(composition) and restrictions of paints combination are improving only a large thing and ink absorbency, there is a fault to which printing density falls.

[0006]Although adding cationic resin to a rewetting liquid is proposed in JP,6-305237,A, since selection of adhesives is insufficient, the level satisfied over all printing density, the ink drying characteristics, and dot shape reproducibility is not acquired. Even if JP,6-320857,A carries out mixed use of the cationic resin which paint viscosity tends to thicken, in order not to make it thicken, it has proposed using vinyl acetate system latex, but what also satisfies this over all printing density, the ink drying characteristics, and dot shape reproducibility is not obtained. furthermore -- as a means to improve an ink drying characteristic -- ** -- loss in quantity of high formulation ** adhesives combination number of copies of bulky paints, etc. can be considered. It is dramatically difficult for the printing density in the relation between this and negative correlation to fall in many cases, although the ink drying characteristic of these improves, and to make it compatible.

[0007]

[Problem(s) to be Solved by the Invention]This invention maintains the original Takahira slippage of cast coated paper, and an object of this invention is to provide the cast coated paper for ink jet recording which was excellent in ink jet recording suitability, such as printing density, an ink drying characteristic, and the shape reproducibility of a dot.

[0008]

[Means for Solving the Problem]a result which this invention persons studied wholeheartedly -- a ratio -- paints with which sedimentation volume blended 20 or more weight sections of paints of 1.20 or more ml/g into all the paints 100 weight sections. or a ratio of mixed paints -- sedimentation volume using paints of 1.20 or more ml/g, Coating of the coating composition which carried out 5-30 weight-section combination of the adhesives which use aqueous urethane resin as the main ingredients is carried out to a base paper, By carrying out cast finishing, it finds out that cast coated paper for ink jet recording which was excellent in ink jet recording suitability, such as printing density, an ink drying characteristic, and the shape reproducibility of a dot, is obtained, and came to complete this invention.

[0009]paints -- a ratio of itself -- a ratio of paints which sedimentation volume was a not less than 1.20ml/g thing, and 20 or more weight sections of the combination number of copies are blended into all the paints 100 weight sections, or were mixed -- it being required for sedimentation volume to be 1.20 or more ml/g, and, If these conditions are not fulfilled, aggravation of ink drying nature and a dot will grow fat, and a circular

distortion will be caused. a paint -- a ratio -- when what has big sedimentation volume is blended so much, printing density may fall, but it can adjust with an adhesive amount in this case.

[0010]good [anything], if conditions mentioned above as paints are suited -- a ratio, if sedimentation volume illustrates paints in whichg is shown in not less than 1.20ml /, For example, calcination clay, calcium carbonate, hydroxylation aluminum, amorphous silica, A satin white, calcium sulfate, magnesium sulfate, magnesium carbonate, There are organic colors, such as inorganic pigments, such as talc, a calcium silicate, and diatomite, a polystyrene system or polyacrylic plastic polymer, a polystyrene system or polyacrylic plastic polymer, and urea resin system plastic polymer. There is no restriction in particular in paints which carry out mixed concomitant use at these, and clay, a titanium dioxide, barium sulfate, etc. are out of the above-mentioned thing. a ratio -- a measuring method of sedimentation volume was indicated in the second half of an example.

[0011]what a cationic substance etc. are added for in a paint -- a ratio, although sedimentation volume is increased and aiming at an improvement of an ink drying characteristic is also considered, It is not [worsening the mobility of a paint in many cases] desirable, if a cationic substance is added in paints so that an effect is generally observed in an ink drying characteristic and improvement in ink fixable.

[0012]If aqueous urethane resin as adhesives contains urethane bond-NHCOO- in a molecule, it is [anything] good. For example, tolylene diisocyanate, 4, and 4'-diphenylmethane diisocyanate, Dianisidine diisocyanate, hexamethylene di-isocyanate, Meta key silylene diisocyanate, 1,5-naphthalene diisocyanate, Transformer vinylene diisocyanate, 1,4-butylene diisocyanate, Isocyanates, neopentyl glycol, such as isophorone diisocyanate, 1,4-butanediol, 1,6-hexanediol, polyethylene glycols, Polypropylene glycol, polytetramethylene glycol, polyester polyol, There is an anionic form to which a cation form to which the third class amines, such as the Nonion type to which polyols, such as polycarbonate polyol, were made to react, and N-methyldiethanolamine, were made to react, dimethylol propionic acid, etc. were made to react.

[0013]What constructed the bridge with water-soluble amino resin, such as an aquosity-ized thing to depend on amines, such as triethylamine and dimethylethanolamine, and methylation melamine resin, an aziridine, an epoxy resin, a zinc complex, etc. may be used. As a state of aqueous urethane resin, what is necessary is just an emulsion, colloidal dispersion liquid, solution, etc. Combination number of copies has five to 30 preferred weight section to all the paints 100 weight section, if

there is no effect in improvement in printing density and 30 weight sections are exceeded, this improvement in an effect will be saturated with less than five weight sections, and an ink drying characteristic will get worse a little by them.

[0014]a ratio -- paints of sedimentation volume 1.20 ml/g, and combination of aqueous urethane resin -- printing density. although all of an ink drying characteristic and the shape reproducibility of a dot are alike and cross, and they improve why or there is no end clearly -- a ratio -- it is thought that sufficient opening to absorb ink with paints of sedimentation volume 1.20 ml/g is vacant in a coating layer. Since it being thought that it is serving for urethane resin to have a function's to which ink is fixed, and to stop ink's on the coating layer surface by an interaction between a urethane bond's and ink of an ink jet, and a coating surface are cast finishing, smooth nature is considered that all improved by a high thing etc.

[0015]namely, a ratio -- if aqueous urethane resin is not used only with paints of 1.20 or more ml/g of sedimentation volume, ink permeates in a coating layer, and printing density, [fall and] a ratio -- only with paints and aqueous urethane resin of 1.20 or less ml/g, there are few openings of a coating layer, sedimentation volume will not fully be able to absorb a liquid component in ink, and an ink drying characteristic will get worse.

[0016]In addition to this as adhesives, synthetic latex, such as water soluble adhesives, such as casein, soybean protein, synthetic protein, starch, and polyvinyl alcohol, latex of a polystyrene butadiene series, latex of poly acrylic, and polyvinyl acetate system latex, may be used together if needed. It is suitable in respect of that concomitant use of casein, soybean protein, and synthetic protein raises detachability from a cast drum further as water soluble resin, and operability is improved from an aqueous-urethane-resin independent case especially in this, and improvement in printing density. Combination number of copies of these concomitant use mixing adhesives has five to 45 preferred weight section to all the paints 100 weight section. In less than five weight sections, intensity of a coating layer runs short, and if 45 weight sections are exceeded, a fall of an ink drying characteristic will be caused.

[0017]If a concomitant use ratio of synthetic latex needs to be 15 or less % of the weight and becomes more than this to aqueous urethane resin, it will cause a fall of an effect of aqueous urethane resin.

[0018]In order to make exfoliation from a cast drum easy, a release agent may be added in paints if needed, as an example -- water-soluble soap (sodium stearate etc.) and insoluble in water nature soap (calcium stearate.) There are aliphatic series amide, a hydrocarbon emulsion of a wax or polyethylene and higher alcohol (cetyl alcohol etc.), such as zinc stearate, turkey red oil, a fluorine compound, a silicone compound, etc.

[0019]In addition, auxiliary agents, such as a dispersing agent, a defoaming agent, a water resistance-ized agent, an antiseptic, a water retention agent, a color, fluorescent dye, and a color pigment, can be used if needed.

[0020]Any approach may be used although there are direct method, the gelling method, a rewet system, etc. in cast finishing. In the case of a rewet system, to a rewetting liquid Ammonia, polyamide resin, An amide compound, phosphorus compounds (hexametaphosphoric acid sodium etc.), fluoride, metallic salt solutions (sulfate of zinc, calcium formate, etc.), an alkylphenyl sulfo amidocarbonic acid derivative, a release agent mentioned above, etc. may be added if needed. A substance etc. which may use a water-soluble cation substance together to this rewetting liquid, for example, have the 3rd class amino group and the 4th class ammonium can be used. Also especially in this, a reactant of epihalohydrin, water-soluble monoalkyl amine, and/or water-soluble dialkyl amine can use it conveniently to ink jet recording suitability. Epichlorohydrin, epibromohydrin, EPIYODO hydrin, etc. are mentioned as epihalohydrin.

[0021]a ratio with specific this invention -- coating of the coating composition which blended paints and aqueous urethane resin of sedimentation volume being carried out, and, By processing with a RIWETTO solution which used together a reactant of a cationic substance especially epihalohydrin, water-soluble alkylamine, and/or water-soluble dialkyl amine when carrying out cast finishing, This effect is larger than a system which a multiplication improved effect is further observed in ink jet recording suitability, and uses resin other than aqueous urethane resin, for example, polystyrene butadiene series latex, poly acrylic latex, poly vinyl acetate system latex, etc. As this cause, the ink fixing effect of a urethane bond is presumed to be what was further raised with a cationic substance.

[0022]The restriction in particular may not be in coating stencil paper used as a base paper, either, a high-quality base and while exposing and blending mechanical pulp and deinking pulp, a nature base may be sufficient, and also what carried out under coating of the stencil paper surface in clear size liquid thru/or pigment paints may be used.

[0023]Next, if a method of carrying out coating of the coating composition of this invention is also a method whose coating a solid content coating amount can carry out to 10 - 30 g/m² at the time of desiccation, anything, it is good, for example, an air knife coater, a blades coating machine, a roll coater, a bar coating machine, a photogravure coating machine, a brush coating machine, etc. can be used.

[0024]

[Example]Although an example explains further below, thereby, this invention is not limited. All combination number of copies is effective solid content.

[0025](Example-1) UW-90 (ratio clay, sedimentation volume:1.08 ml/g, ENGERU hard company make) 40 weight section, Brilliant 15 (ratio calcium carbonate, sedimentation volume:1.39 ml/g, Shiraishi industrial company make) 60 weight section, Aaron T-40 (dispersing agent, Toagosei chemicals company make) 0.40 weight section, AMMO Near water 0.1 weight section (active principle) and former star AP(defoaming agent, Sannopuko make) 0.1 weight section were agitated for 30 minutes with addition and the Cau Les dispersion machine in distributed water, and the pigment slurry of concentration was obtained 58%.

[0026]Casein solution 15% to this pigment slurry 100 weight section Subsequently, 12 weight sections, The amount part of duplexs and the dilution water were added for ten weight sections and DEF-922F (a release agent, the Nissin Institute for Chemical Research make), SL-1930 (aqueous urethane resin, imperial chemicals industrial company make) was agitated for 10 minutes, and the coating composition of concentration was obtained 35%. Coating of this coating composition was carried out so that it might become coating amount 22 g/m² in the high-quality coating stencil paper of U.S. tsubo 90 g/m², and it dried with 100 °C and a 2-minute deferred wind dryer.

[0027]Spreading re-humidity of the calcium formate solution is carried out to this coating surface 3% as a rewetting liquid, Reliance cast treatment was promptly pushed and carried out to the cast roll on condition of the skin temperature of 100 °C, and linear pressure 50 kg/cm, cast coated paper was obtained, and ink jet recording suitability (printing density, an ink drying characteristic, dot shape reproducibility) was evaluated with the BJC-880C inkjet printer (made by a canon company). A result is described in a table.

[0028](Example-2) In example-1, SL-2108 (aqueous urethane resin, imperial chemicals industrial company make) as an adhesives presentation 15 weight sections, DL-636 (polystyrene butadiene series latex, Asahi Chemical Co., Ltd. make) The amount part of duplexs, Except making the pro coat 400 (soybean protein, Protein Technologies international company make) into eight weight sections, and making concentration of a coating composition 32%, it carried out like example-1, cast coated paper was obtained, and record fitness was evaluated. A result is described in a table.

[0029](Example-3) In example-1, HG-90 (ratio sedimentation volume : clay, 1.02ml [g] /, made in Huber) as a paints presentation 60 weight sections, KAOARU (ratio calcination clay, sedimentation volume:2.05 ml/g, seal company make) 40 weight sections, SL-2106 (aqueous urethane resin, imperial chemicals industrial company make) as an adhesives presentation Twelve weight sections, Except making casein into 12 weight sections and making a rewetting liquid into the mixed water solution of

calcium formate and a 7% dimethylamine epichlorohydrin reactant 3%, it carried out like example-1, cast coated paper was obtained, and record fitness was evaluated. A result is described in a table.

[0030](Example-4) In example-1, Ms. KASHIRU P-603 (ratio sedimentation volume : synthetic silica, ml [3.78 / // g], Mizusawa Industrial Chemicals, Ltd. make) as a paints presentation 80 weight sections, For HG-90 SL-1930 as 20 weight sections and an adhesives presentation 20 weight sections, Except making 15 weight section and MS-4600 (phosphorylation starch, Japanese food-processing company make) into the amount part of duplexs for casein, and making concentration of a coating composition 25%, it carried out like example-1, cast coated paper was obtained, and record fitness was evaluated. A result is described in a table.

[0031](Example-5) In example-4, the you pearl C-120 (ratio urea resin polymer, sedimentation volume:6.64 ml/g, Mitsui Toatsu Chemicals, Inc. make) as a paints presentation 20 weight sections, SL-1930 as 35 weight sections and an adhesives presentation for 45 weight sections and UW-90 25 weight sections, [Ms. KASHIRU P-603] For casein 15 weight sections and charge of one side undercoat [paints presentation:HT kaolin (clay, ENGERU hard company make) 40 weight sections, The ace 25 (calcium carbonate, the said sum cull fine company make) 60 weight sections, Adhesives presentation : For MS-4600 four weight sections and JSR-0695 (polystyrene lid diene system latex, Japan Synthetic Rubber Co., Ltd. make) Twelve weight sections, Except carrying out coating amount 15 g/m² coating to the nature stencil paper of inside with coating amount 7 g/m²] (NBKP/LBKP/RGP/DIP=15/45/30/15), it carried out like example-4, cast coated paper was obtained, and record fitness was evaluated. A result is described in a table.

[0032](Example-6) brilliant [as a paints presentation] in example-1 .. 15 60 weight sections, ANSI REXX (ratio calcination clay, sedimentation volume:1.68 ml/g, ENGERU hard company make) 20 weight sections, A satin white (ratio sedimentation volume : 3.18ml [g] / , Shiraishi industrial company make) is made into pigment slurry 45% by 20 weight sections, The adhesives presentation was performed like example-1 except carrying out concentration of 30 weight sections and a coating composition, and using [an adhesives presentation / casein] a rewetting liquid as sulfate-of-zinc solution for ten weight sections and S3020N (aqueous urethane resin, Hodogaya Chemical Co., Ltd. make) 3% 20%, cast coated paper was obtained, and record fitness was evaluated. A result is described in a table.

[0033](Example-7) In example-1, casein was performed like example-1 as an adhesives presentation except making ten weight section and SL-2108 into five weight sections,

and using a rewetting liquid as sulfate-of-zinc solution 3%, cast coated paper was obtained, and record fitness was evaluated. A result is described in a table.

[0034](Example-8) Except making a rewetting liquid into the mixed water solution of 3% calcium formate and a 7% diethylamine -**** bromine hydrin reactant in example-1, it carried out like example-1, cast coated paper was obtained, and record fitness was evaluated. A result is described in a table.

[0035](Example-9) brilliant [as a paints presentation] in example-1 -- 15 50 weight sections, HG-90 was performed [PVA-117 (polyvinyl alcohol, Kuraray Co., Ltd. make)] for 50 weight sections and an adhesives presentation like example-1 except making three weight section and SL-1930 into 20 weight sections, and using a rewetting liquid as sulfate-of-zinc solution 3%, cast coated paper was obtained, and record fitness was evaluated. A result is described in a table.

[0036](Example-10) Except making UW-90 into 80 weight sections and making Ms. KASHIRU P-603 into 20 weight sections as a paints presentation, in example-1, it carried out like example-1, cast coated paper was obtained, and record fitness was evaluated. A result is described in a table.

[0037](Comparative example-1) Except substituting DL-636 for SL-1930 in example-1, it carried out like example-1, cast coated paper was obtained, and record fitness was evaluated. A result is described in a table.

[0038](Comparative example-2) Except making combination number of copies of DL-636 into ten weight sections in example-2, it carried out like example-2, cast coated paper was obtained, and record fitness was evaluated. A result is described in a table.

[0039](Comparative example-3) Except making UW-90 into 90 weight sections and making KAOKARU into ten weight sections as a paints presentation, in example-3, it carried out like example-3, cast coated paper was obtained, and record fitness was evaluated. A result is described in a table.

[0040](Comparative example-4) In example-1, UW-90 was performed like example-1 as 100 weight sections and an adhesives presentation as a paints presentation except making ten weight section and SL-2108 into five weight sections, and using a rewetting liquid as sulfate-of-zinc solution for casein 3%, cast coated paper was obtained, and record fitness was evaluated. A result is described in a table.

[0041](Comparative example-5) In example-1, casein as an adhesives presentation Ten weight sections, Except making SL-2108 into the amount part of duplexes, and making a rewetting liquid into the mixed water solution of a dimethylamine epichlorohydrin reactant 7% with sulfate of zinc 3%, it carried out like example-1, cast coated paper was obtained, and record fitness was evaluated. A result is described in a table.

[0042](Comparative example-6) In example-1, UW-90 as a paints presentation 20 weight sections, Casein as 80 weight sections and an adhesives presentation for Ms. KASHIRU P-603 15 weight sections, Nipol LX407C (polystyrene butadiene-series latex: made by Nippon Zeon Co., Ltd.) was performed like example-1 except making 25% concentration of 20 weight sections and a coating composition, cast coated paper was obtained, and record fitness was evaluated. A result is described in a table.

[0043](Comparative example-7) In example-1, UW-90 as a paints presentation 20 weight sections, brilliant -- except making 15 into 70 weight sections and making [Ms. KASHIRU P-603] ten weight section and DL-636 into ten weight sections for casein as ten weight sections and an adhesives presentation, it carried out like example-1, cast coated paper was obtained, and record fitness was evaluated. A result is described in a table.

[0044](Comparative example-8) In example-1, UW-90 as a paints presentation 20 weight sections, brilliant -- for 15 70 weight sections and Ms. KASHIRU P-603 10 weight sections, For casein ten weight sections and the resin 125-1105 (polyvinyl acetate system latex, product made by the Kanebo *****-) as an adhesives presentation Ten weight sections, Except making Goh *****. C-820 (quarternary-ammonium-salt content acrylic resin, Japanese synthetic chemistry company make) into 30% of the concentration of eight weight sections and a coating composition as cationic resin, it carried out like example-1, cast coated paper was obtained, and record fitness was evaluated. A result is described in a table.

[0045]

[Table 1]

	印字濃度	インク乾燥性	ドット形状再現性
実施例- 1	1.35	○	◎
実施例- 2	1.39	○	◎
実施例- 3	1.32	◎	◎
実施例- 4	1.29	◎	○
実施例- 5	1.27	◎	○
実施例- 6	1.21	◎	○
実施例- 7	1.20	◎	○~◎
実施例- 8	1.41	◎	◎
実施例- 9	1.26	◎	○
実施例- 10	1.30	○	◎
比較例- 1	1.01	△	×
比較例- 2	1.05	×	×
比較例- 3	1.35	×	△
比較例- 4	1.27	×	×
比較例- 5	1.15	○	△
比較例- 6	0.95	◎	×
比較例- 7	1.10	○	○~△
比較例- 8	0.98	○	△

[0046]Valuation method printing density : the concentration of a sumi part. Are the Macbeth densimeter and Measurement ink drying nature:O. time 10 or less second O -- time 30 to 50-second x -- 50-second or more dot shape reproducibility [until after-printing ink dries];, [until after-printing ink dries] [until the ink after time 10 to 30-second ** printing until after-printing ink dries dries] [O bleed, grow fat and] there is no circular distortion -- it thing O bleeds and grows fat and a circular distortion is accepted slightly -- it thing ** bleeds and grows fat, and a circular distortion is accepted considerably -- thing x bleeding and growing fat -- a circular distortion -- dramatically -- an adult thing [0047]a ratio -- sedimentation volume: -- to paints 100 weight section, it scatters by for [dispersing agent (made in / Toagosei chemicals / Aaron T-40) 0.1 weight-section addition] 10 minutes, and pigment slurry is prepared 10% of the weight. At-long-intervals heart sedimentation of the paints in this pigment slurry is carried out at the turning radius of 170 mm, and 1800 rpm for 60 minutes, and the capacity A (ml) of the paints cake which sedimented is measured. They are desiccation and oven dry weight about this cake. B (g) is measured. the value which substituted these measured value for the following formula, and was calculated -- a ratio -- it is considered as sedimentation volume.

a ratio -- sedimentation volume = A/B (ml/g) [0048]

[Effect of the Invention]as the example and comparative example which were shown in Table 1 above showing -- the cast coated paper of this invention -- the inside of all the paints 100 weight sections -- a ratio -- the ratio of the paints which blended 20 or more weight sections of paints of 1.20 or more ml/g of sedimentation volume, or the mixed

paints -- sedimentation volume is the paints of 1.20 or more ml/g.

By carrying out coating of what carried out 5-30 weight-section addition to all the paints 100 weight section by using aqueous urethane resin as the main ingredients as adhesives to a base paper, and carrying out cast finishing of this coated paper, It has the record fitness (printing density, an ink drying characteristic, dot shape reproducibility) outstanding as an ink jet recording paper.

Abstract:

PURPOSE: To provide cast coated paper excellent in printing density, ink drying properties and ink jet recording aptitude such as dot shape reproducibility or the like.

CONSTITUTION: In a paint compsn. based on pigment and an adhesive, the pigment is compounded with 20 pts.wt. or more of pigment with specific sedimentation vol. of 1.20ml/g or more per 100 pts.wt. of the total pigment. The adhesive is based on an aq. urethane resin and added in an amt. of 5-30 pts.wt. per 100 pts. of the total pigment. The paint compsn. is applied to base paper and the coated paper is subjected to cast finish.